

P.B.5818 - Patentiaan 2 2280 HV Rijswijk (ZH) 2 +31 70 340 2040 TX 31651 epo nl FAX +31 70 340 3016



Europäisches Patentamt

 $\neg$ 

Zweigstelle in Den Haag Recherchenabteilung



Branch at The Hague Search division Office européen des brevets

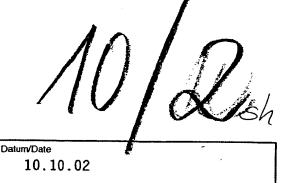
Département à H. W La Haye Division de la

HOFFMANN - EITLE Patent- und Rechtsanwälte Arabellastrasse 4 81925 München ALLEMAGNE

**EINGEGANGEN** 

1 1. Okt. 2002

HOFFMANN · EITLE, MÜNCHEN PATENTANWÄLTE RECHTSANWÄLTE



Zeichen/Ref./Réf.

85 199 a/km

Anmeldung Nr./Application No./Demande n°./Patent Nr./Patent No./Brevet n°.

00126509.9-2207-

Anmelder/Applicant/Demandeur/Patentinhaber/Proprietor/Titulaire
MITSUBISHI DENKI KABUSHIKI KAISHA

## COMMUNICATION

The European Patent Office herewith transmits as an enclosure the European search report for the above-mentioned European patent application.

If applicable, copies of the documents cited in the European search report are attached.

Additional set(s) of copies of the documents cited in the European search report is (are) enclosed as well.

The following specifications given by the applicant have been approved by the Search Division:

(X) abstract

☐ title

The abstract was modified by the Search Division and the definitive text is attached to this communication.

The following figure will be published together with the abstract:

1

## REFUND OF THE SEARCH FEE

If applicable under Article 10 Rules relating to fees, a separate communication from the Receiving Section on the refund of the search fee will be sent later.





1

## **EUROPEAN SEARCH REPORT**

Application Number EP 00 12 6509

Category	Citation of document with indication, of relevant passages	where appropriate,	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.CI.7)	
Υ	EP 0 881 752 A (DENSO COR 2 December 1998 (1998-12- * column 23, line 22 - co figures 1-23 *	1-5,7	H02K3/50		
Υ	EP 0 751 609 A (MITSUBISH 2 January 1997 (1997-01-0 * column 12, line 47 - co figures 1-7 *	2)	1-5,7		
A	US 5 508 571 A (SHAFER JR 16 April 1996 (1996-04-16 * column 3, line 36 - col figures 1-10 *	<b>(</b> )	1		
A	PATENT ABSTRACTS OF JAPAN vol. 007, no. 166 (E-188) 21 July 1983 (1983-07-21) & JP 58 072358 A (HITACHI 30 April 1983 (1983-04-30 * abstract *	, SEISAKUSHO KK),	1,4	TECHNICAL FIELDS SEARCHED (Int.CI.7)	
A	US 3 453 468 A (LUND WALT 1 July 1969 (1969-07-01) * column 2, line 51 - col	•	1,2	H02K	
A	PATENT ABSTRACTS OF JAPAN vol. 013, no. 126 (E-734) 28 March 1989 (1989-03-28 & JP 63 294242 A (MITSUBI CORP), 30 November 1988 (* abstract *	SHI ELECTRIC	1		
		-/			
	The present search report has been draw	n up for all claims		·	
	Place of search	Date of completion of the search	) T	Examiner	
X : part Y : part	MUNICH  ATEGORY OF CITED DOCUMENTS  iccularly relevant if taken alone iccularly relevant if combined with another ument of the same category	T: theory or principle E: earlier patent doc after the filling dat D: document cited in L: document cited fo	underlying the ument, but publi e the application		



1

EPO FORM 1503 03.82 (P04C01)

## **EUROPEAN SEARCH REPORT**

Application Number EP 00 12 6509

		ERED TO BE RELEVANT	T	
ategory	Citation of document with of relevant pas	indication, where appropriate, sages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (int.CI.7)
4	PATENT ABSTRACTS OF vol. 1999, no. 11, 30 September 1999 ( & JP 11 150904 A (S LTD; HONDA MOTOR CO 2 June 1999 (1999-0 * abstract *	(1999-09-30) SAWAFUJI ELECTRIC CO LTD).	1	
4	EP 0 978 927 A (DEM 9 February 2000 (20 * column 1, line 21 *	 ISO CORP) 1000-02-09) - line 30; figures 4-7	6	
				TECHNICAL FIELDS SEARCHED (Int.Ci.7)
<del>-,</del>	The present search report has t			
	Place of search	Date of completion of the search	_	Examiner
CA X : partic Y : partic docui A : techr	MUNICH  ITEGORY OF CITED DOCUMENTS  Cularly relevant if taken alone cularly relevant if combined with anothment of the same category notogical background written disclosure	L : document cited for	underlying the in ument, but publisl the application r other reasons	hed on, or



EP 00 12 6509

This annex lists the patent family members relating to the patent documents cited in the above–mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

27-09-2002

998 WO AU AU AU BR CA CN CN CN DE DE DE DE	5829198 // 9801214 // 9801695 // 2231123 // 2238504 // 2238600 // 1202028 // 1208277 // 1208985 // 1200591 // 69800498 [	A 02-09-199 A 30-12-199 B 07-10-199 A 03-12-199 A 13-07-199 A 05-10-199 A 26-11-199 A 26-11-199 A , B 16-12-199 A , B 17-02-199
AU AU BR CA CN CN CN DE DE DE	4222897 / 710990 E 5829198 / 9801214 / 9801695 / 2231123 / 2238504 / 2238600 / 1202028 / 1208277 / 1208985 / 1200591 / 69800498 E	A 30-12-199 B2 07-10-199 A 03-12-199 A 13-07-199 A 05-10-199 A1 26-11-199 A1 26-11-199 A1 26-11-199 A , B 16-12-199 A , B 17-02-199
AU BR CA CA CN CN CN DE DE	710990 E 5829198 F 9801214 F 9801695 F 2231123 F 2238504 F 2238600 F 1202028 F 1208277 F 1208985 F 1200591 F 69800498 E	32 07-10-199 A 03-12-199 A 13-07-199 A 05-10-199 A1 26-11-199 A1 26-11-199 A1 26-11-199 A , B 16-12-199 A , B 17-02-199
AU BR CA CA CN CN CN DE DE	5829198 // 9801214 // 9801695 // 2231123 // 2238504 // 2238600 // 1202028 // 1208277 // 1208985 // 1200591 // 69800498 [	A 03-12-199 A 13-07-199 A 05-10-199 A1 26-11-199 A1 26-11-199 A ,B 16-12-199 A ,B 17-02-199
BR BR CA CA CN CN CN DE DE DE	9801214	A 13-07-199 A 05-10-199 A1 26-11-199 A1 26-11-199 A1 26-11-199 A ,B 16-12-199 A ,B 17-02-199
BR CA CA CN CN CN DE DE	9801695	A 05-10-199 A1 26-11-199 A1 26-11-199 A1 26-11-199 A ,B 16-12-199 A ,B 17-02-199
CA CA CN CN CN DE DE	2231123	A1 26-11-199 A1 26-11-199 A1 26-11-199 A ,B 16-12-199 A ,B 17-02-199
CA CA CN CN CN DE DE DE	2238504	A1 26-11-199 A1 26-11-199 A ,B 16-12-199 A ,B 17-02-199
CA CN CN CN DE DE DE	2238600 A 1202028 A 1208277 A 1208985 A 1200591 A 69800498 D	A1 26-11-199 A ,B 16-12-199 A ,B 17-02-199
CN CN CN DE DE DE	1202028	A ,B 16-12-199 A ,B 17-02-199
CN CN CN DE DE DE	1208277	A ,B 17-02-199
CN CN DE DE DE	1208985 A 1200591 A 69800498 D	•
CN DE DE DE	1200591 A 69800498 D	24 02 100
DE DE DE	69800498 D	4 24-02-199
DE DE		
DE	F SONOSOS	01-03-200
		T2 06-09-200
DE	69801259 D	
	69801259 T	
DE	69803217 D	
DE	69803217 T	
DE	69803813 D	
DE	69803813 T	
DE	69803900 D	
DE		2 12-09-200
EP		1 09-08-200
EP	1179881 A	
EP	1237254 A	
EP	1227567 A	
EP	0881752 A	
EP	0881756 A 0881747 A	
EP EP	0881742 A	
EP	0881744 A	
EP	0881748 A	
EP	0881749 A	
EP	0881750 A	
EP	0881745 A	
EP	0881746 A	
EP	0881751 A	
EP	0881743 A	
EP	0881753 A	
ES	2154065 T	
MO	9854823 A	
	2000069729 A	
٦P.		
JP IIS	6097130 A	
JP US US	- Data (0/5 N- 10	/00
	US	



EP 00 12 6509

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

27-09-2002

Patent document cited in search report		Publication date		Patent family member(s)	Publication date	
ΕP	0881752	Α		US	5936326 A	10-08-1999
				US	5952749 A	14-09-1999
				US	6011332 A	04-01-2000
				US	5982068 A	09-11-1999
EP	0751609	 A	02-01-1997	JP	9019119 A	17-01-1997
				CN	1139309 A ,B	01-01-1997
				EP	1137156 A2	26-09-2001
				EΡ	0751609 A2	02-01-1997
				KR	220311 B1	15-09-1999
				US	5682070 A	28-10-1997
US	5508571	Α	16-04-1996	EP	0717488 A2	19-06-1996
JP	58072358	Α	30-04-1983	NONE	dies dies 400 führ eine dies also dies dies dies dies dies aus auss auss auss auss	
US	3453468	A	01-07-1969	NONE		
JP	63294242	 А	30-11-1988	JP	2001738 C	20-12-1995
				JP	7032554 B	10-04-1995
				DE	3817912 A1	22-12-1988
				KR	9102994 B1	11-05-1991
				US	4954734 A	04-09-1990
JP	11150904	Α	02-06-1999	CN	1219794 A	16-06-1999
	•			EP	0917255 A2	19-05-1999
				US	6030260 A	29-02-2000
ΕP	0978927	Α	09-02-2000	JP	3275839 B2	22-04-2002
				JP	2000060051 A	25-02-2000
				EP	0978927 A1	09-02-2000
				US	6147432 A	14-11-2000

FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82